

Title (en)

HIGHLY HEAT CONDUCTIVE DEVICE SUBSTRATE AND METHOD FOR PRODUCING SAME

Title (de)

HOCHWÄRMELEITENDES VORRICHTUNGSSUBSTRAT UND VERFAHREN ZUR HERSTELLUNG DAVON

Title (fr)

SUBSTRAT DE DISPOSITIF HAUTEMENT THERMOCONDUCTEUR ET SON PROCÉDÉ DE PRODUCTION

Publication

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Application

EP 18832873 A 20180710

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Abstract (en)

Provided are a device substrate with high thermal conductivity, with high heat dissipation, and with a small loss at high frequencies, and a method of manufacturing the device substrate. A device substrate 1 of the present invention can be manufactured by: provisionally bonding a Si device layer side of an SOI device substrate 10 to a support substrate 20 using a provisional bonding adhesive 31, the SOI device substrate including a Si base substrate 11, a Box layer 12 formed on the Si base substrate, having high thermal conductivity, and being an electrical insulator, and a Si device layer 13 formed on the Box layer; removing the Si base substrate 11 of the provisionally bonded SOI device substrate until the Box layer is exposed, thereby obtaining a thinned device wafer 10a; transfer-bonding the Box layer side of the thinned device wafer and a transfer substrate 40 to each other using a transfer adhesive 32 having a heat-resistant temperature of at least 150 °C by applying heat and pressure, the transfer substrate having high thermal conductivity and being an electrical insulator; and separating the support substrate 20.

IPC 8 full level

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